

# Leica Nova TM50

Monitoring Station – Every  
half second counts

Nova



gis

- when it has to be **right**

**Leica**  
Geosystems

# TM50 Monitoring Station – Every half second counts

We live in a dynamic world. Buildings and dams settle, bridges flex and vibrate, rock masses shift, mud slides, glaciers flow and volcanoes erupt. Whether by human activity such as mining and construction or by natural processes such as climate change and erosion, the world in which we live is continually changing.

Engineering companies and contractors face increased challenges monitoring this change. They are being charged with – and being held liable for – the condition of the structures they create and maintain. In order to surmount these challenges, engineers need to be able to measure structural movements to millimetre-level accuracy. For equipment to manage and monitor these structures, engineers rely on Leica Geosystems and the Leica Nova TM50 Monitoring Station: because every half second counts!



## IMAGE ASSISTANCE FOR EVERY SITUATION

The Leica Nova TM50 includes an overview camera and a telescope camera with 30x magnification and autofocus. With state-of-the-art image processing technology the Leica Nova TM50 delivers the highest quality image for complete visual documentation of the monitoring environment. Obstructions in the line of sight can be easily inspected remotely, avoiding safety concerns in high-risk environments.



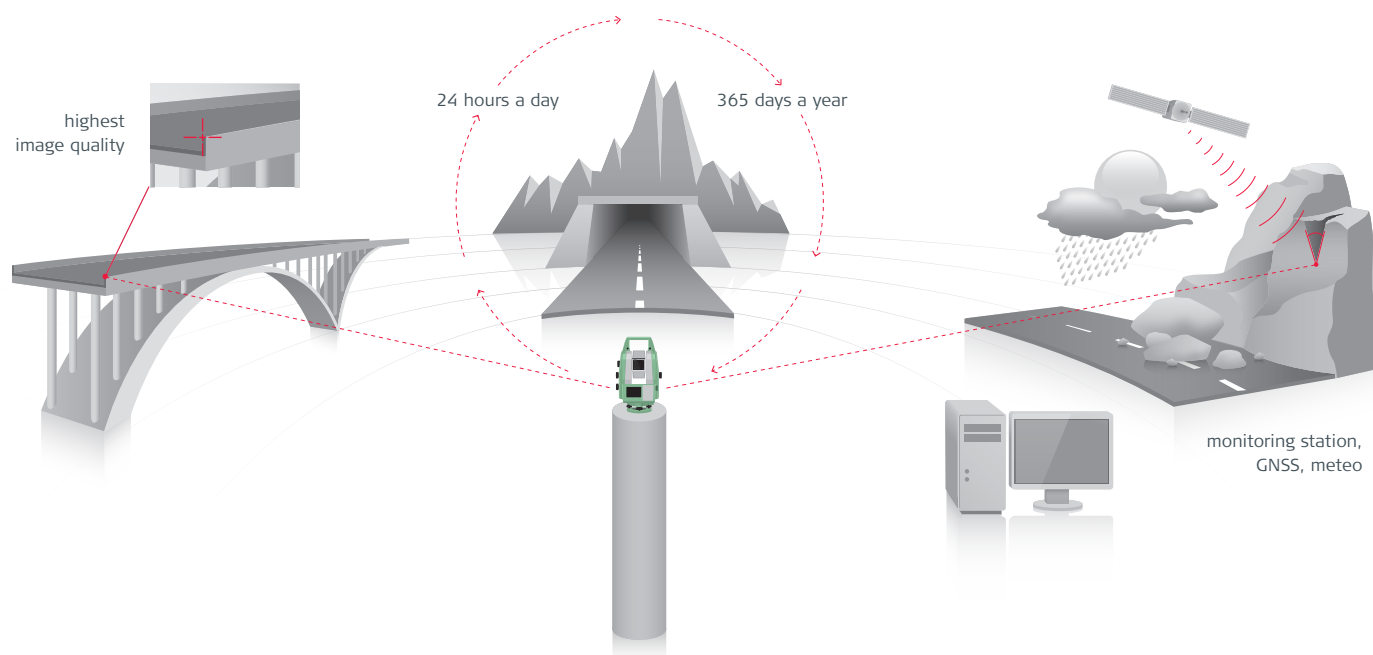
## CONTINUOUS OPERATION AND RELIABILITY

The Leica Nova TM50 meets the challenge of 24 hours, 7 days a week monitoring applications. It is designed to withstand the roughest use in the most severe environments. The Leica Nova TM50 will operate throughout a wide temperature range and is protected against wind driven rain, sand and dust. The Leica Nova TM50 is fully operational in bright sunlight and complete darkness.



## COMPLETE MONITORING INTEGRATION

The Leica Nova TM50 forms one component of a unique Monitoring solution which seamlessly integrates total stations, GNSS receivers and antennas, geotechnical sensors, software and IT communication infrastructures. Leica GeoMoS software provides a highly flexible automatic deformation monitoring system that is able to combine sensors to give you peace of mind.





#### HIGHEST MEASUREMENT ACCURACY

- 0.5" Angular accuracy
- 0.6 mm + 1 ppm distance accuracy
- 0.5" Automatic Aiming (ATR) accuracy and 3 km range

#### ROBUST IP65 DESIGN

- -20°C to +50°C operating temperature
- IP65 protection against wind, dust and rain

#### HIGH RESOLUTION OVERVIEW AND TELESCOPE CAMERA

- Automatic capturing of panoramic images
- 30x magnification for high resolution images and fine aiming
- Automatic focus

#### FLEXIBLE CONNECTIVITY

- Wireless LAN
- USB port
- Bluetooth®, RS232

#### POWER MANAGEMENT

- External power supply
- Internal battery charging

#### HIGH DYNAMIC PIEZO DRIVES

- Best-in-class speed and acceleration
- Zero noise pollution
- Maximum service intervals

## Facilitating important decision making

Leica GeoMoS software provides a highly flexible automatic deformation monitoring system that is able to combine geodetic, geotechnical and meteorological sensors to match the needs of your monitoring project, whether it is large or small, temporary or permanent.

With the addition of the GeoMoS Web service, visualisation and analysis of monitoring data can be performed anywhere and anytime using a web browser, mobile phone or tablet. Make important decisions with Leica GeoMoS.





Whether measuring objects on a construction site, or monitoring a dam or a bridge; whether capturing an accident scene with digital imaging or scanning a building façade – you need reliable and precise data. The Leica Nova solution perfectly integrates all these capabilities in one compact solution.

Leica Nova embodies 90 years of innovative thinking to develop outstanding technologies. A solution that gives you the benefits of not only being able to take faster, smarter decisions, but also better and more informed decisions regardless of the application. Leica Nova represents our commitment to precision, reliability and flexibility. Faster, Better, Smarter, Simpler are the key words that describe the benefits of the Leica Nova; a unique solution that covers the complete process from capturing and visualising data, to deciding and delivering.

Leica Nova is the new dimension in measuring technology – make the right decision.

**When it has to be right.**



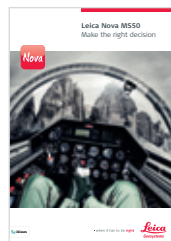
**Distance meter (Prism),  
ATR and PowerSearch:**  
Laser class 1 in accordance  
with IEC 60825-1 resp. EN  
60825-1

**Laser plummet:**  
Laser class 2 in accordance  
with IEC 60825-1 resp. EN  
60825-1

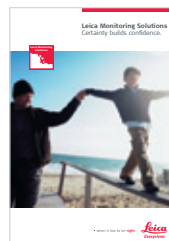
**Distance meter (Non-Prism):**  
Laser class 3R in accordance  
with IEC 60825-1 resp. EN  
60825-1

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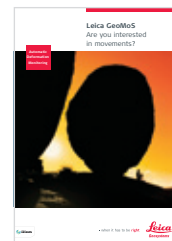
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**Leica Nova MS50**  
Product brochure



**Leica Monitoring  
Solutions**  
Product brochure



**Software**  
Leica GeoMoS  
Leica GeoMoS HiSpeed  
Leica GeoMoS Web



**GPS/GNSS**  
Leica GM10  
Leica GMX902 Series